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ABSTRACT

Using a retrospective life history sample (LHS), the educational activities of white and black men from age 14 to age 30 were determined. A lack of association of family background characteristics with resumption of schooling activities after labor force entry was found for both blacks and whites. Attainment level was related to the likelihood of resuming schooling: Black and white men with little educational attainment were unlikely to resume schooling. Ability differences between those continuing and not continuing were found for blacks, but not consistently for whites. Educational attainments are detailed by race, age, and type of educational activity. Rates, incidents, and duration of part-time education and other continuing education patterns are also supplied. The educational career patterns of the LHS are described in relation to labor force and educational activities. (Author)

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PATTERNS OF EDUCATIONAL ACTIVITIES: DISCONTINUITIES AND SEQUENCES

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Introductory Statement

The Center for Social Organization of Schools has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through three programs to achieve its objectives. The Schools and Maturity program is studying the effects of school, family, and peer group experiences on the development of attitudes consistent with psychosocial maturity. The objectives are to formulate, assess, and research important educational goals other than traditional academic achievement. The program has developed the Psychosocial Maturity (PSM) Inventory for the assessment of adolescent social, individual, and interpersonal adequacy. The School Organization program investigates the authority-control structures, task structures, reward systems, and peer group processes in schools. It has produced a large scale study of the effects of open schools on students, has developed the Teams-Games-Tournament (TGT) instructional process for teaching various subjects in elementary and secondary schools, and has produced a computerized system for school-wide attendance monitoring. The School Process and Career Development program is studying transitions from high school to post-secondary institutions and the role of schooling in the development of career plans and the actualization of labor market outcomes.

This report, prepared by the School Organization program, describes and compares the patterns of educational activities for black and white men from age 14 to age 30 in a national sample.

Abstract

Using a retrospective life history sample (LHS), this paper describes the educational activities of white and black men from age 14 to age 30. Their educational attainments are detailed by race, age, and type of educational activity. Rates, incidents and duration of part-time education and other continuing education patterns are supplied. A lack of association of family background characteristics with resumption of schooling activities after labor force entry was found for both blacks and whites. Attainment level was related to the likelihood of resuming schooling: black and white men with little educational attainment were unlikely to resume schooling. Ability differences between those continuing and not continuing were found for blacks, but not consistently for whites. Finally, the educational career patterns of the LHS were described in relation to labor force and educational activities.

Introduction

In determining the importance of educational attainments for subsequent attainments, two assumptions regarding educational activities are typically made. First, educational attainments are viewed as the product of continuous full-time enrollment in school over a consecutive period of years. Second, educational attainments are usually assumed to be completed prior to labor force entry. In fact, labor force entry is frequently defined as the first job held after the highest degree was earned (Blau and Duncan, 1967).

These assumptions regarding the nature and the timing of educational activities are incorporated in status attainment models by the measurement of educational attainment at a single time point and by the specification of educational attainments as causally prior to occupational ones. The accuracy of the estimates thus obtained is in part contingent upon the credibility of these two assumptions regarding the nature and sequencing of educational activities. In this paper, I explore the validity of these two assumptions by describing the patterns of educational activities for a national sample of black and white men, aged 30-39 in 1968 (the Retrospective Life History Survey).

Besides the more narrowly defined issues of measurement error and specification bias, these descriptions have a second purpose. Recently, there has been increasing research interest in the timing and sequencing of events in the life course (Hogan, 1975; Featherman and Carter, 1976; Elder, 1975). In this research, normative patterns of sequencing of

important life events (e.g. completion of schooling, entrance into the labor market, initiation of marriage, birth of children) are identified, and the sources and consequences of deviations from the usual pattern discussed. For example, "early" marriages and "early" children are both associated with unstable marriages (Hogan, 1975; Elder, 1975). Some attention has been paid in these discussions to the existence of educational discontinuities (Featherman and Carter, 1976) and to the inversion of the usual pattern of labor force entry upon schooling completion (Hogan 1975; Blau and Duncan, 1967; Duncan, Featherman and Duncan, 1972). But, for the most part, the data pertaining to educational activities are usually not suitable for addressing this sequencing issue. Thus, much evidence concerning the prevalence of non-normative patterns of educational and occupational linkages is largely indirect. For example, in the Blau and Duncan study, the men specified "the first full-time job you had after you left school." Approximately one-eighth of the respondents gave an answer which was unlikely unless, according to Blau and Duncan, (a) they erroneously reported a part-time or school vacation job as first job or (b) they interrupted their schooling to enter the labor force and later resumed their schooling. Considering the phrasing of the question, individuals with interrupted education could have interpreted it in various ways, not all of which would result in "inconsistent" responses. For example, they could have given as "first job" the first job held after completion of schooling, ignoring previous labor-force participation. Consequently, more than one-eighth of the men could have resumed schooling after entering the labor force.

With the data to be used in the present analysis, it is possible to unambiguously determine the sequencing of major life events because the month and year of changes in these events were recorded. Thus, this data set is uniquely suited for describing the discontinuities in educational activities and the sequencing of educational and labor force activities.

Previous research has documented the prevalence of discontinuities in schooling at a variety of attainment junctures. Most research has, however, focused on interruptions in college enrollment. Eckland (1964) determined that only 49.7 percent of the males in the 1952 freshmen class at the University of Illinois completed their degree requirements by a pattern of enrollment in eight contiguous semesters. Similarly, Alexander and Eckland (1973) using a national sample (Explorations in Equality of Educational Opportunities or EEO) found that of the college freshmen in 1958, 49.3 percent of the men and 53.5 percent of the women were enrolled continuously until graduation. This pattern of interruptions in schooling was also documented by a survey of the freshmen classes of 1961 and 1966 (Khawas and Bisconti, 1974). In this national survey, 47.1 percent of the males and 60.4 percent of the females in the 1961 cohort were found to have completed their degree requirements by continuous enrollment over a four year period. The corresponding figures for the 1966 cohort were 41.4 and 50.5 (Khawas and Bisconti, 1974; 60).

Interruptions in educational attainment occur at the secondary level as well. Census data indicate that about 5 percent of persons aged 18-24 and 25-34 are still in the process of earning a high school

diploma (1970 Statistical Abstract, Table 7). Also, many students who attain their high school diplomas "on time" delay entrance into post-secondary educational activities. Featherman and Carter (1976), examining the post-secondary educational activities of 17 year old males in Lewanee County, Michigan found that 20.2 percent delayed their entrance into post-secondary schooling by at least six months.

Resumption of educational activities several months or years after formally "leaving" school appears then to be a frequent occurrence. Although this prevalence of discontinuities in educational activities may be of interest in describing the sequencing and timing of life events, it might be argued that such discontinuities are inconsequential for the estimates of occupational returns to education. If these resumptions of educational activities do not, by and large, result in a change in attainment level, it could be argued that consideration of resumed activities would alter the estimates very little. Supporting evidence is suggested by Ornstein's (1976) analysis of the factors related to prestige and wage differentials in the first eight years of labor force participation. Using the same sample of black and white men which will be used in the present analysis, Ornstein found that the effect of changes in educational attainment after labor force entry was inconsequential for wage and status changes. As Ornstein notes, very little change in attainment level actually occurred from these resumed educational activities--the zero-order correlation between attainment at first job and attainment measured eight years later was .89 for white men and .95 for black men.

However, when educational activities, not change in attainment levels, were utilized in similar analyses with the same data, quite different conclusions were drawn. Coleman et al (1972) found that continuing educational activities were the single most important intervening factor in explaining prestige differentials. The other factors which were introduced as intervening variables between first job and job held 10 years later were marital and family events, residential movement, and various job-specific factors including part-time jobs, unemployment, military experience and number of job changes.

Thus, from the standpoint of discussing the sequencing of major life events and for understanding how educational and occupational attainments are linked, a description of the patterns of educational activities should be informative. With the aim of informing these two general lines of inquiry, this paper describes the educational activities of a national sample of black and white men. In the first section, a description of the data and variables is supplied. Next, the educational activities of the men by age and race are detailed, including attainment, duration and type of schooling. In these descriptions, distinctions are made between full and part time activities and enrollment in a degree or non-degree program. Finally, the paper discusses the frequency of interruptions and resumption of schooling and describes various patterns of labor force and educational participation.

Data and Variables

The Retrospective Life History data (LHS), collected in 1968 as a part of the Social Accounts project at the Johns Hopkins University,

will be used in this analysis. The universe for the sample in this study was the total population of black and white males 30-39 years of age, in 1968, residing in households in the United States. Individuals were selected by multi-stage area probability methods with an over-sampling of black men which resulted in a sample of 738 blacks and 851 whites. Whites in this sample include all non-black individuals, e.g. Mexican Americans, Oriental Americans, and Puerto Ricans. Details of the sample design may be found in Blum, Karweit and Sorenson (1969). The information, collected retrospectively from the time the respondent was aged 14 to the time of interview, included educational, occupational, familial and residential history. These four areas were measured by 13 variables: full-time education, full-time employment, part-time employment, part-time education, military service, other full-time activities, family history, wife's education, wife's employment, household composition, income adequacy, home details and migration history. A complete description of the contents of each variable may be found in Blum et al (1969). Details of events in each of these areas were recorded along with a "time" dimension, in months, indicating when a change occurred in any variable. Thus, with this type of collection instrument, all changes in a respondent's familial, residential, occupational and educational history were recorded from age 14 to time of the interview. In addition, characteristics of the respondent's family of origin (at the time the respondent was aged 14) were obtained.

The information in the life history sample was obtained by interviews. In these interviews, the men recalled their experiences in four

major life areas (education, occupation, residence and marriage) from the age of 14 to the date of interview. For educational activities, both full-time and part-time experiences were recorded. Under full-time education, the name and type of school, dates attended and degree or highest grade completed were recorded. For part-time educational activities, the name, type, purpose, financing, attainment earned, and dates attended were obtained. Education undertaken while in the military was also recorded, indicating actual courses taken and whether they were degree or non-degree oriented.

Educational Activities: Attainment, Duration and Type of Schooling

The range of educational attainment for the sampled men at the date of interview extends from no formal schooling to attainment of a Ph.D. or professional degree. Table 1 gives the percentage of black and white men attaining various educational levels. In terms of average attainment levels, white men have completed their high school diploma and have had some post-secondary education, whereas the average black respondent has an attainment somewhat short of a high school degree. These attainment figures appear to match fairly closely comparable Census data (cf. 1970 Statistical Abstracts, Tables 157 and 160), and indicate that not only do blacks have lower attainment levels, but that they are also less likely than whites to actually complete a credential.

Table 1 About Here

From Table 2, which gives the participation in various educational

activities by age and by race, it is apparent that black men discontinue their full-time education earlier than whites and that they are less likely to become re-involved via part-time education. For example, at age seventeen 62.7 percent of the white men were still in full-time education, but only 47.9 percent of the black men were. Table 2 also indicates that most blacks and whites complete their involvement in full-time education as young men and that virtually no one remains in full-time education at age 30. Involvement in part-time education is not undertaken by a majority of the men at any age; however, a substantial proportion of men in their early twenties are enrolled in some part-time educational activity.

Table 2 About Here

Because any individual may have enrolled in a part-time course more than once; these percentages do not indicate how many men ever participated in part-time education. Considering all usages of part-time education, 45.5 percent of the white men and 32.3 percent of the black men had at least one instance of participation in part-time education. Interestingly, about twice as many men are enrolled in part-time non-degree oriented courses as are enrolled in degree oriented courses. For the black sample, 23.4 percent and 9.4 percent were in non-degree and degree programs respectively. The corresponding figures for white men were 32.9 and 15.9 percent.

Table 3 presents the average duration (in months) of participation of black and white men in each type of educational activity from age

14 to 30. Several interesting racial differences are revealed by Table 3. First, black men have been out of school for about a year and a half longer than white men by age 30. This difference reflects both an earlier dropping-out age and a lower rate of resuming educational activities. Second, black men appear to be less efficient than white men in converting time spent in pursuit of a degree into a degree earned. On the average, counting part-time as a half of full-time, black men spend about 11.8 years in full-time schooling or in other degree oriented programs. White men spend about 13.7 years in these same educational pursuits. Converting attainment levels to years of schooling by using the midpoint of each category and dividing this "years of schooling completed" by "years spent in schooling", black men attain .87 "years" for each year spent whereas whites attain .90 "years" for each year spent in degree oriented programs.

Table 3 About Here

This lower conversion rate for blacks may be seen more directly by the comparisons of educational attainment at labor force entry and final attainment for blacks and whites, supplied in Table 4. From this table, it is apparent that black men at all educational levels are less likely than whites to change their attainment after entering the labor market. For example, of the 179 white men who entered the labor market without a high school diploma but with some high school education, 36 percent did return to school and at least complete their high school degree. For black males, only 14.3 percent returned

and completed their degree. Fewer blacks than whites resume their education once it is interrupted and of those who do resume, fewer blacks than whites convert this resumption into degree attainment.

Interruptions, Resumptions and Labor Force Participation

In addition to describing the attainment levels and the use and duration of use of various educational activities, it is interesting to describe the sequencing, especially with respect to labor force entry, of these educational activities. I begin by differentiating the patterns of educational involvement for the men in the LHS. An "interrupted schooling" pattern is defined as a lapse of six or more months between enrollment in some form of education or as a progression, without a lapse, from full-time to part-time degree education. In Table 5, the percentages of black and white men who were always in full-time education and who had some form of educational discontinuity are displayed. Again, racial differences in the pattern of educational activities are apparent. Black men are much more likely to have always been enrolled in full-time studies than are whites (59.5 percent vs. 41.5 percent). Of the men who do interrupt and later resume their schooling, white men are more likely than black men to resume schooling full-time; however, the predominant resumption pattern for both races is pursuit of education part-time.

Table 5 About Here

The resumption activity indicated in Table 5 pertains to the first interruption of full-time schooling. For the majority of black and white men, this activity is their only resumption of education. However, about five percent of each sample did return to school via part-time or full-time schooling on multiple occasions.

Concerning the length of this first interruption, the white men, on average, stay out of school 4.5 years before returning, whereas the black men stay out on the average 7.0 years before returning. Black men then, appear to discontinue education earlier, to resume it less frequently and after a longer absence and to pursue non-degree oriented courses more often than whites.

The most likely reason for interrupting schooling is entrance into the labor market. Few of the men who interrupted their education had a full-time or part-time job six months prior to the first interruption. Six months after interruption, however, the majority of these black and white men are employed full-time. Again, there are racial differences; white men are more likely to be employed in the civilian labor force than are black men (57.4 percent vs. 51.0 percent). Six months after leaving school, about 26 percent of the black men are unemployed or looking for work compared with 17.5 percent of the white men.

Because the opportunities (or lack of them) for labor force participation are no doubt closely tied to decisions to terminate or continue schooling, it is interesting to document how schooling and work are combined for the men in this sample. In Table 6, the distribution

of four types of educational-occupational patterns are presented, separately by race. The first category consists of those men who, at the date of attaining their highest educational degree, left full-time education, did not resume any sort of educational activity and eventually entered the labor market. This pattern is the one usually assumed by status attainment models. This form of transition from education to work is utilized by about 60 percent of the blacks, but only 42 percent of the whites. Other patterns of education-occupation linkages do occur and with sufficient frequency to warrant questioning the assumption that this first pattern can legitimately be termed a "standard pattern" of transition from education to work. Some 39.1 percent of the whites and 32.2 percent of the blacks leave full-time education at the point they enter the labor market, but return to part-time schooling later on. Additionally, some 8.4 percent of the whites and 4.6 percent of the blacks attain their highest earned degree after entry into the labor force via resumption of full-time schooling. The last educational pattern contains those instances in which highest education is obtained after first entering the labor force by a combination of full-time and part-time experiences.

Table 6 About Here

Summary and Discussion

Using a national sample (the Retrospective Life History data) of black and white men aged 30-39 in 1968, this paper has described their

educational activities from age 14 to 30. Although educational credentials are normally thought to be earned through continuous enrollment in full-time schooling, this paper documents that a majority of white men and a substantial proportion of black men utilize alternate educational patterns. These patterns include alternating periods of labor force participation with educational participation and enrollment in part-time schooling while working full-time. This finding of the prevalence of alternate educational routes has implications for current methods of assessing returns to education. Typically, these assessments utilize measures of educational attainment obtained at a single point in time--prior to labor force entry. Thus, the measurement of educational attainment is prone to error for the many individuals who resume education after labor force entry. This assumption that education is completed prior to labor force entry is operationalized in the models which assess returns to education by specifying a one-way causal link from education to work. Thus, these models do not consider potential occupational effects on educational attainments. Because labor market conditions may encourage or hinder educational pursuits, attending to the mutual dependence of these two events would seem to provide a more appropriate specification of the process by which educational and occupational attainments are linked.

The present description of educational activities documents distinct racial differences in patterns of involvement in education. To summarize, black men were found to have lower educational attainments, to terminate their formal schooling earlier, to resume schooling

less often and after a longer absence than white men. White men showed a greater tendency to utilize continuing or part-time education and had a higher likelihood of converting the time spent in educational pursuits into the attainment of a degree or credential. These differences in educational activities by race have, as yet, unknown consequences for the estimates of returns to education and for the now generally accepted finding that returns to education are lower for blacks than whites.

Table 1

Life History Survey

Highest Educational Attainment for Black and White Males

Code	Educational Level	White		Black	
0	Less than 4 years of schooling	10	(1.2%)	32	(4.4%)
1	Elementary, 4-7	35	(4.2%)	92	(12.6%)
2	Grade school diploma	70	(8.5%)	52	(7.1%)
3	Some high school	119	(14.5%)	227	(31.0%)
4	High school graduate	229	(27.8%)	162	(22.1%)
5	Post high school & vocational	117	(14.2%)	68	(9.3%)
6	Some college	93	(11.3%)	56	(7.6%)
7	College graduate	108	(13.1%)	40	(5.5%)
8	Advanced education	42	(5.1%)	3	(0.4%)
	TOTAL	823		732	
	AVERAGE	4.52		3.42	

Table 2

Proportion of Respondents in Full-Time and Part-Time Schooling by Age and Race

Age	Full-Time Education		Part-Time Education (Civilian & Military)		Part-Time Military	
	White	Black	White	Black	White	Black
14	91.8	89.8				
15	86.8	81.5	0.2	0.2		
16	77.2	65.5	1.1	0.5		
17	62.7	47.9	1.7	1.0		
18	33.0	28.4	5.6	2.7	4.1	1.7
19	21.3	15.8	9.2	6.3	6.5	4.5
20	15.3	8.9	12.1	7.3	9.0	5.2
21	13.0	6.1	12.2	5.9	9.5	5.0
22	10.3	3.2	11.0	6.3	8.0	4.2
23	9.4	2.7	9.6	4.8	6.1	2.8
24	8.9	2.5	8.4	5.4	3.0	1.8
25	6.8	1.9	7.3	4.1	1.3	1.5
26	5.5	1.9	8.6	3.7	0.9	0.4
27	4.4	1.4	7.0	2.7		
28	3.1	1.4	5.6	3.0		
29	2.1	1.2	5.8	2.2		
30	1.2	0.9	5.8	2.4		

Table 3

Average Number of Months in Educational Activities,

Age 14-30 by Race

	Blacks			Whites		
	$\bar{X}$	σ	n	$\bar{X}$	σ	n
Out of Education	146.08	35.64	(728)	128.91	40.05	(847)
Full-Time	124.89	34.11	(732)	134.03	33.11	(848)
Part-Time Degree	17.97	21.36	(47)	23.06	23.46	(107)
Military, non-d	39.24	8.62	(29)	38.53	13.80	(62)
Part-Time, non-d	14.59	14.93	(121)	16.82	18.67	(217)
Military degree	36.78	10.77	(37)	34.36	2.63	(80)

Table 4

Final Educational Attainment by Educational Attainment at Entry Into the Labor Force (ELF) and Race

	Education at ELF	% Making some change	No H.S.	Some H.S.	H.S. Grad.	H.S. Grad. & some Voc'l.	Some College	College Grad.	Number of Cases
WHITES	No H.S.	13.0	86.4 (114)	6.1 (8)	4.5 (6)	1.5 (2)	.8 (1)	.8 (1)	132
	Some H.S.	36.0	--	64.2 (115)	20.7 (37)	6.1 (11)	6.1 (11)	2.8 (5)	179
	H.S. Grad. & Voc.	49.6	--	--	50.4 (184)	28.5 (104)	9.0 (33)	12.1 (44)	365
	Some College	42.1	--	--	--	--	57.8 (48)	42.1 (35)	83
	College Grad.	0.0	--	--	--	--	--	100.0 (91)	91
			114	124	227	117	93	176	850
BLACKS	No H.S.	4.9	95.1 (175)	3.3 (6)	0.5 (1)	0.0 (0)	.5 (1)	.5 (1)	184
	Some H.S.	14.3	--	85.3 (222)	10.3 (27)	2.6 (7)	.7 (2)	.7 (2)	260
	H.S. Grad & Voc.	39.4	--	--	60.6 (134)	27.6 (61)	5.9 (13)	5.9 (13)	221
	Some College	10.3	--	--	--	--	89.5 (43)	10.3 (5)	48
	College Grad.	0.0	--	--	--	--	--	100.0 (25)	25 (738)
			175	228	162	68	59	46	

Table 5

Educational Activity Pattern by Race

First Educational Interruption

	BLACK MEN			WHITE MEN		
	Percent of Total N = 738	n	Percent of Alternate Pattern n = 243	Percent of Total N = 851	n	Percent of Alternate Pattern n = 392
Always full time	59.5%	(439)	--	41.5%	(353)	--
Interrupted full time	6.9%	(51)	21.0%	13.4%	(114)	29.1%
Interrupted part time	26.0%	(192)	53.1%	32.7%	(278)	46.0%
Full time to part time, no interruption	7.5%	(55)	25.9%	12.5%	(106)	25.0%

An interruption is defined as a juncture of six or more months out of school.

Table 6

Educational and Occupational Patterns by Race

	Black	White
Full-time, continuous education, entry into labor market, no part-time education resulting in upgrading	59.5% (439)	41.5% (353)
Full-time, continuous education, entry into labor market, part-time education which resulted in upgrading	32.2% (238)	39.1% (333)
Not continuous, full-time education, upgrading after entering labor force via resumption of full-time education	4.6% (34)	8.4% (72)
Full-time, continuous education, entry into labor market, mixture of part-time, resumption of full-time to earn highest credential	3.6% (27)	10.8% (937)

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